



# Memory Applications for Converged Internet Age

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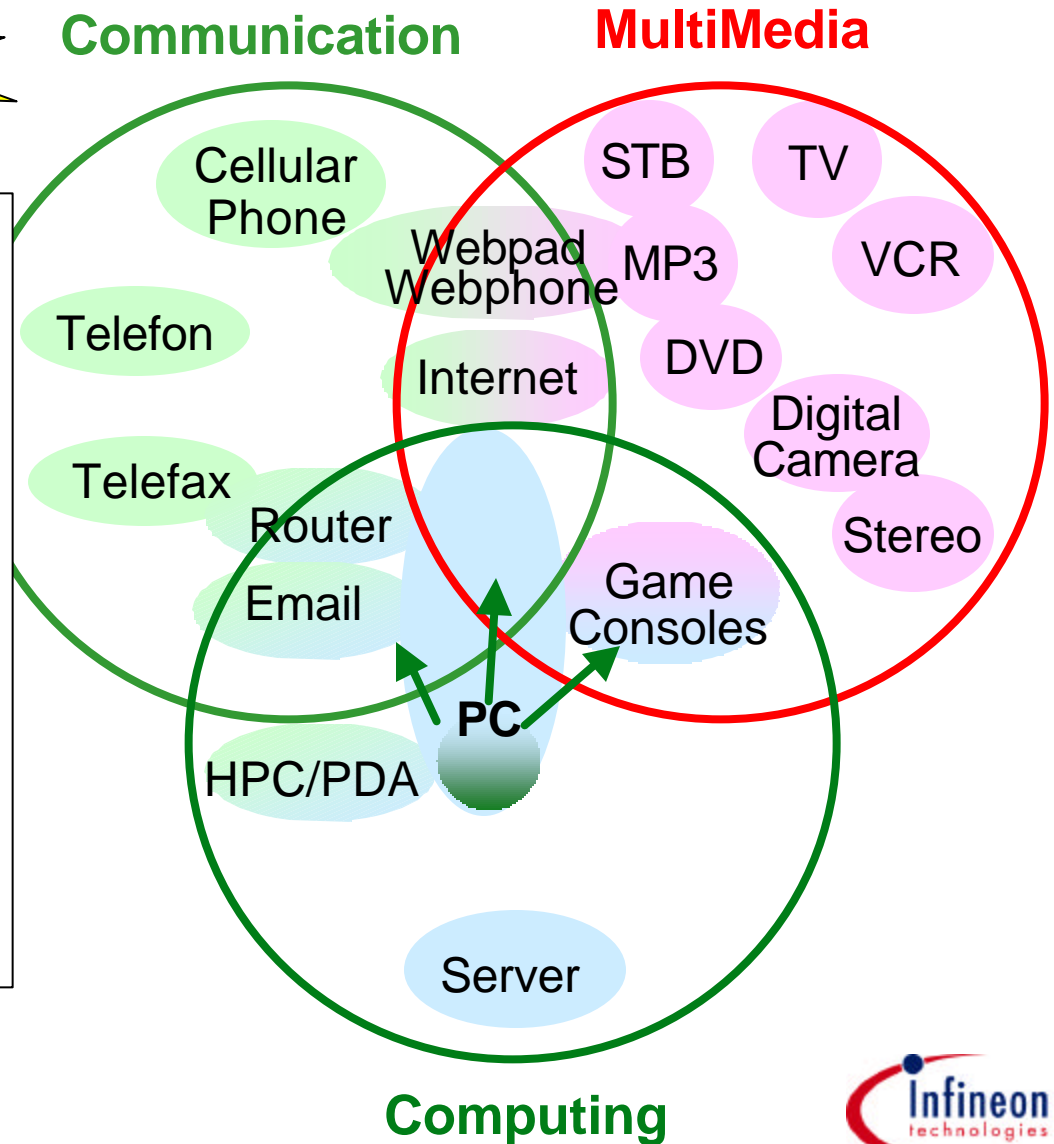
Infineon Technologies Asia Pacific

October 8-9, 2002

# Information / Communication Market

Year  
**2002**

- ✍ PC is a well established, universal platform
- ✍ PC functions migrated from computing into communication and multi-media segments
- ✍ Cellular phones and internet drive global and mobile availability of services and satisfaction of consumer needs
- ✍ Cellular phones and internet drive availability of new services and consumer demand



# Information / Communication Market

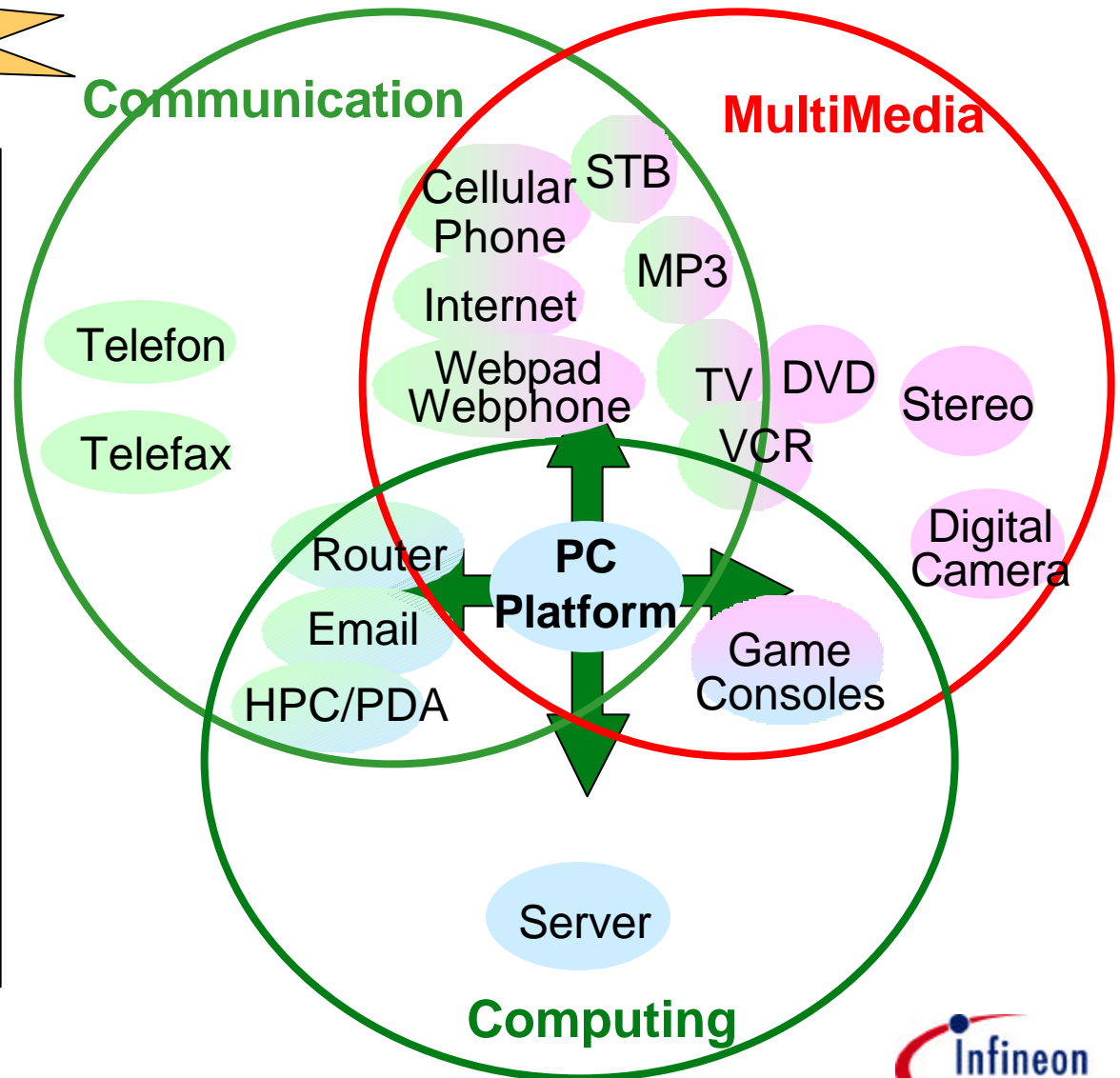
Year  
**2005**

✍ Merging Communication / MultiMedia applications are „hot area“

✍ PC platform will spread into simpler applications of different segments

✍ Key drivers are

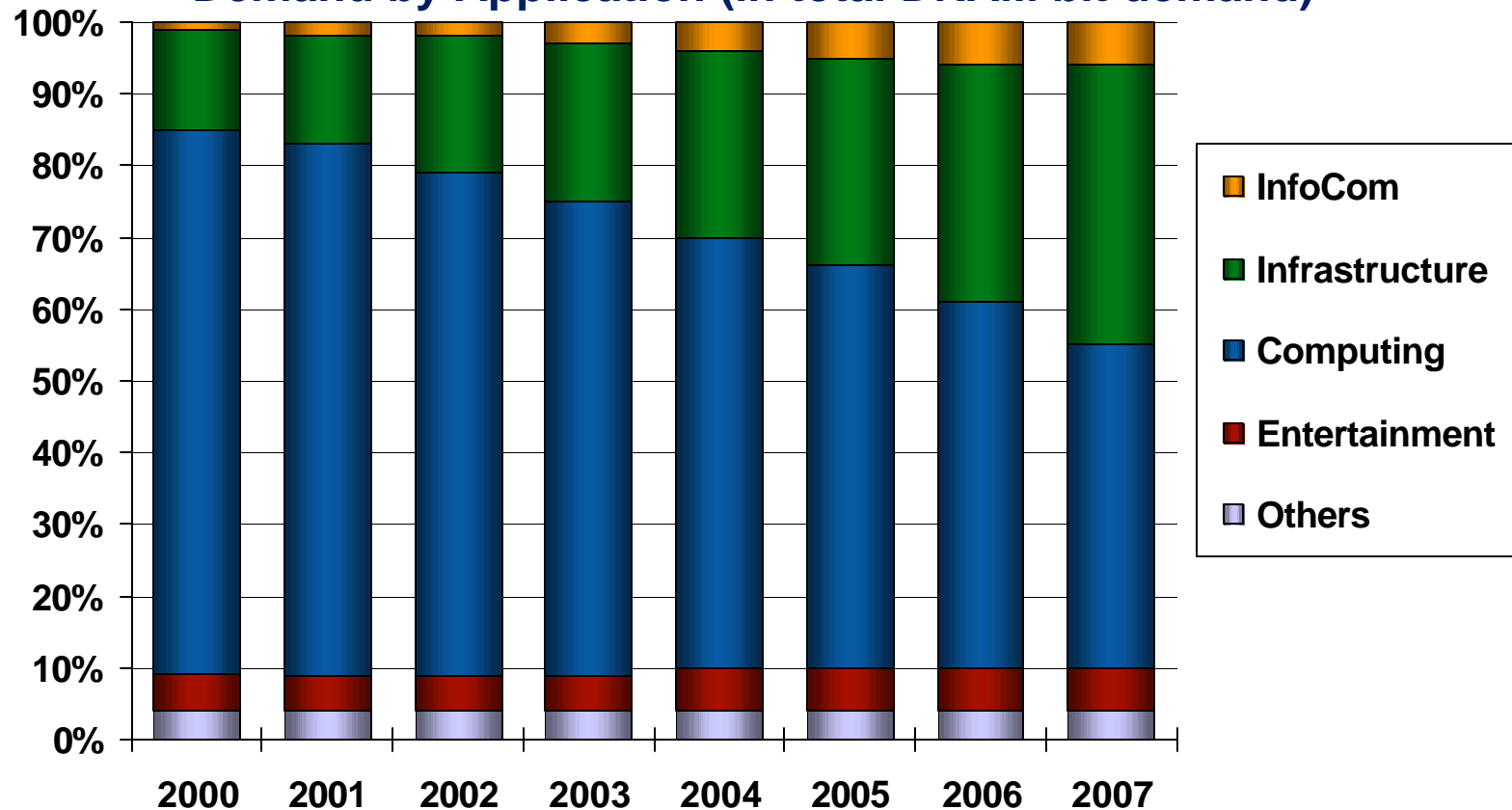
- **internet**
- **mobility**
- **digitalization**
- **ease of use**
- **cost**



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# DRAM Demand by Market Segment

Demand by Application (in total DRAM bit demand)



Market in 256M eq

977 M

Growth rate (bits)

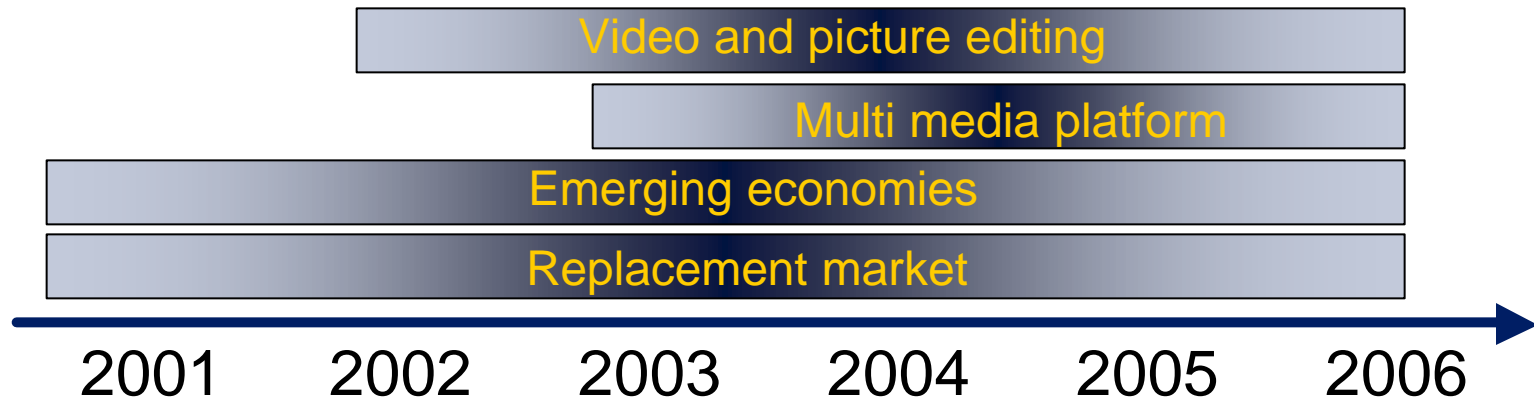
60% 44% 55% 58% 65% 63% 61%

CAGR 02 07

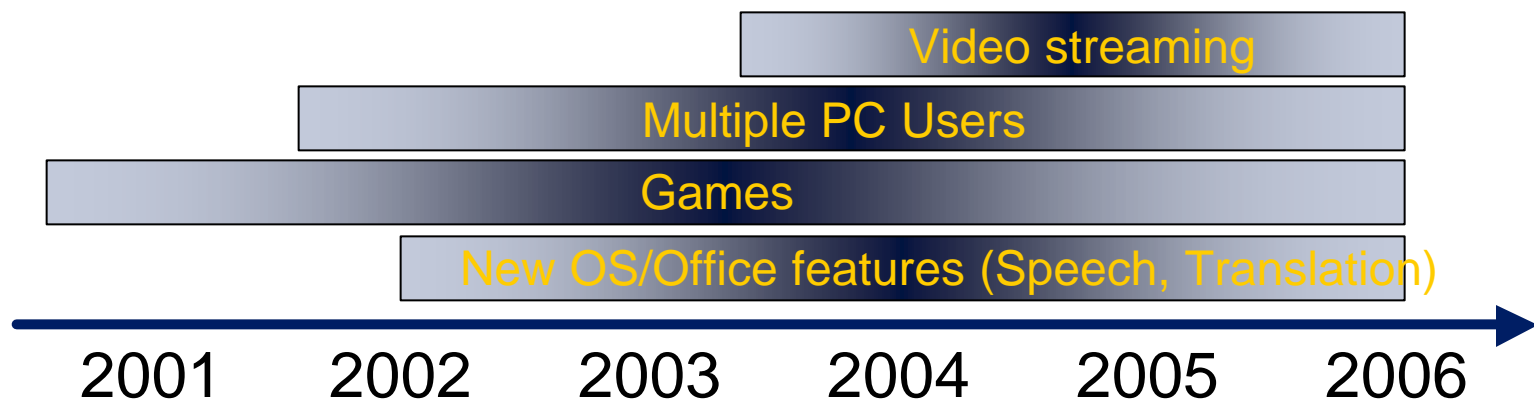
60%

# Market Drivers in the Computing Segment

## Unit Shipments

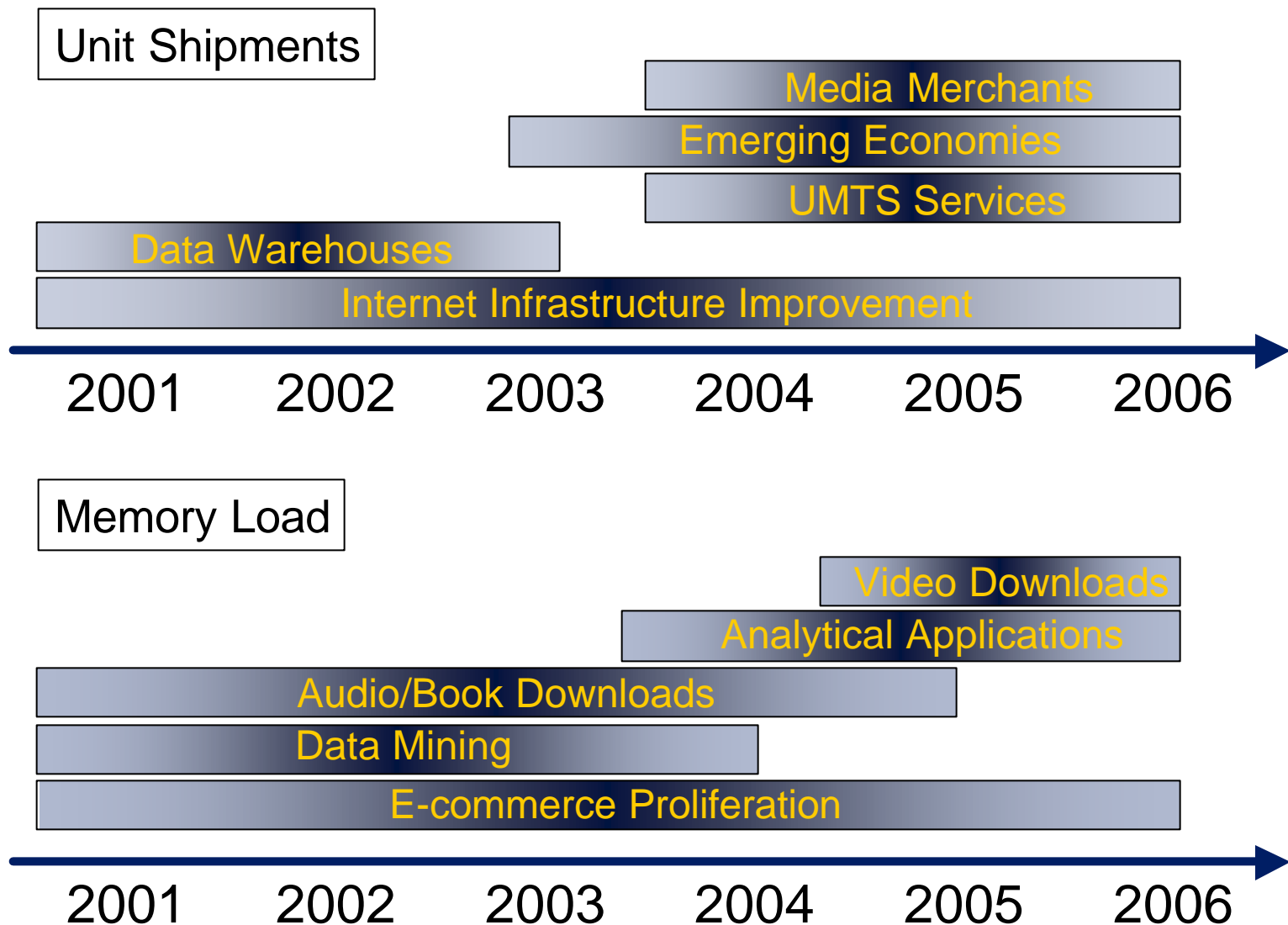


## Memory Load



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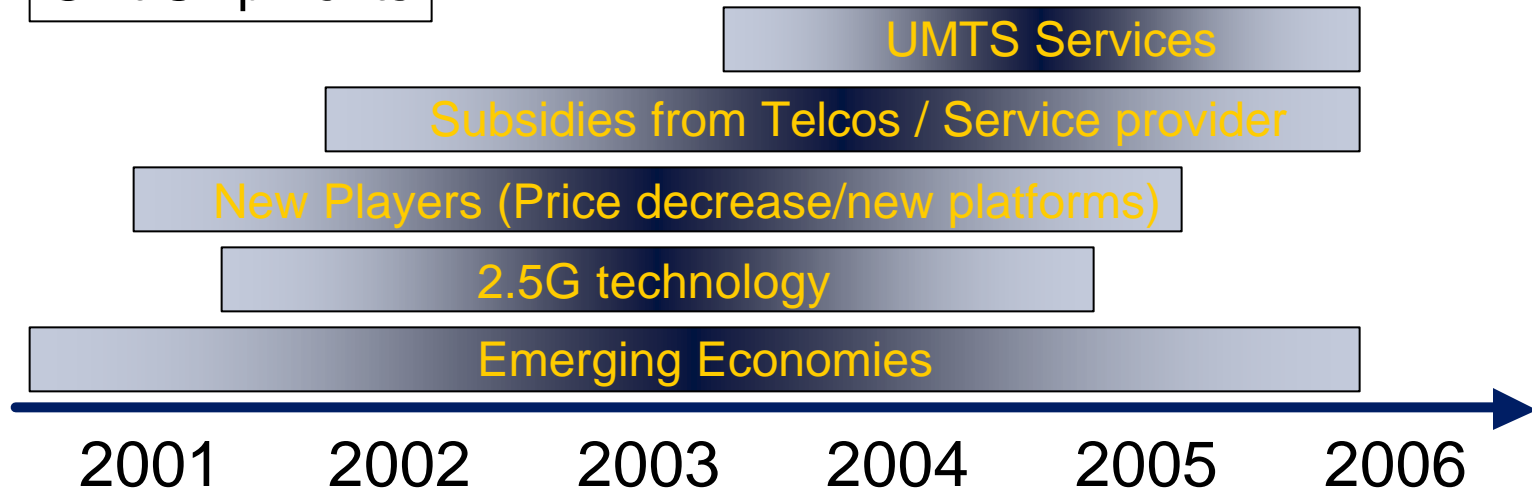
# Market Drivers in the Infrastructure Segment



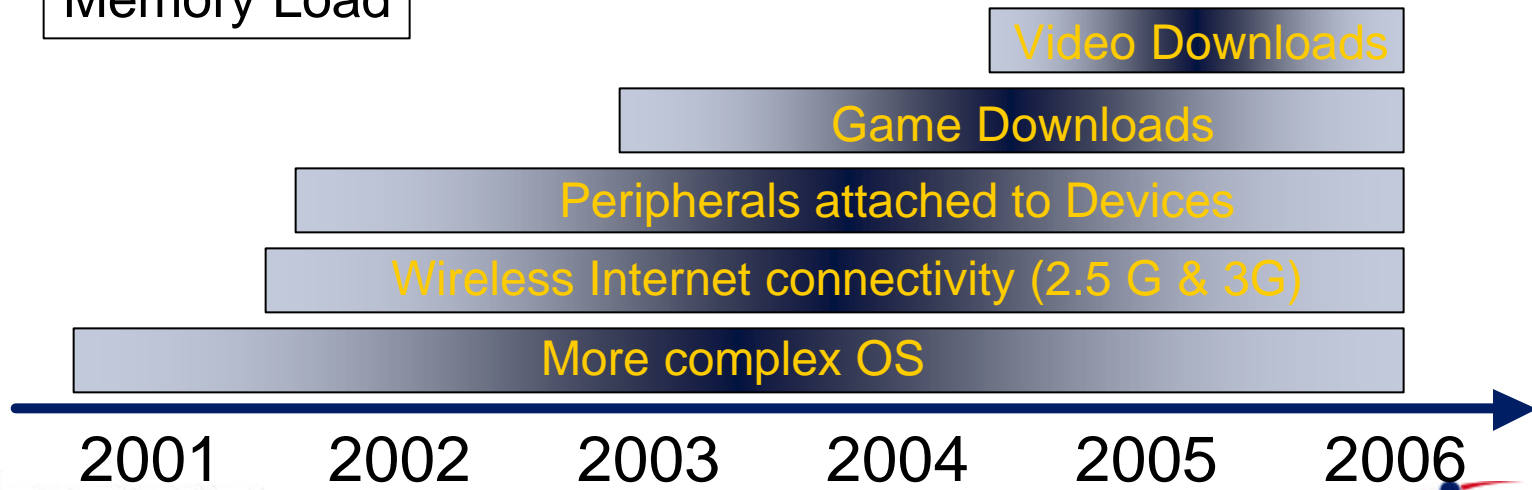
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# Market Drivers in the Infocomm Segment

## Unit Shipments



## Memory Load



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# Infineon DRAMs

Desktop



Notebook



Server &  
Networking



Infocomm



**Mainstream**

**High Performance**

**High Density**

**SDR + DDR unbuffered DIMMs**  
128MB, 256MB, 512MB

**DDR 333**

**SDR + DDR**  
1GB

**SDR + DDR SO-DIMMs**  
128MB, 256MB

**DDR 333**

**SDR + DDR**  
512MB

**SDR + DDR registered DIMMS**  
128MB, 256MB, 512MB

**RLDRAM**  
256Mb

**SDR + DDR**  
1GB, 2GB

**Mobile-RAM**  
128Mb, 256Mb

**CellularRAM**  
32Mb

**Mobile-RAM**  
512Mb

**Lowest Cost Position**

**Technology to deliver  
Highest Speed and Highest Density**



# Memory Technology - Computing / Infrastructure

Performance

## Drivers :

- High performance (FSB)
- High density
- Low power consumption

DDRII

DDR333

DDR SDRAM  
DDR200/266

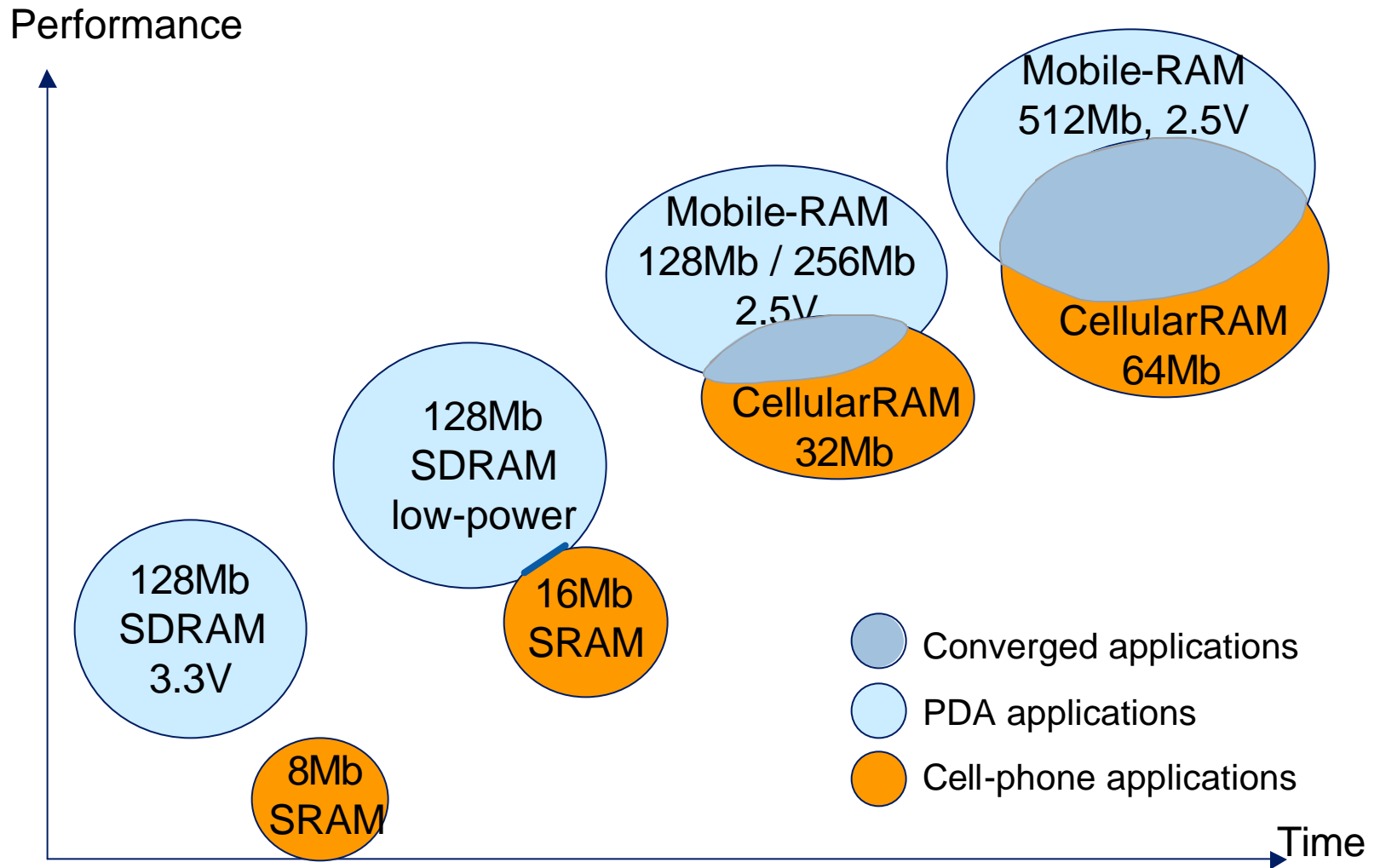
SDRAM PC133

SDRAM PC100

Time

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# Memory Technology - PDAs / Cell-phones



# Infineon Product Portfolio - Computing

- **128Mb SDR and DDR SDRAM in production**
- **256Mb SDR and DDR SDRAM in production**
- **512Mb SDR and DDR SDRAM in sampling**

all Chips PC133 / DDR266/333

- 128 MBytes SDR/DDR unbuffered DIMM modules in production
- 256 MBytes SDR/DDR unbuffered DIMM modules in production
- 512 MBytes SDR/DDR unbuffered DIMM modules in production
- 1 Gbytes SDR/DDR unbuffered DIMM modules in sampling
  
- 128 MBytes SO-DIMM modules in production
- 256 MBytes SO-DIMM modules in production
- 512 MBytes SO-DIMM modules in sampling

all Modules PC133 / DDR266/333

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# Infineon Product Portfolio - Infrastructure

- **128Mb SDR and DDR SDRAM in production**
- **256Mb SDR and DDR SDRAM in production**
- **512Mb SDR and DDR SDRAM in sampling**
- **256Mb RLDRAM in sampling**

all Chips PC133 / DDR266/333

- 128 MBytes SDR/DDR registered DIMM modules in production
- 256 MBytes SDR/DDR registered DIMM modules in production
- 512 MBytes SDR/DDR registered DIMM modules in production
- 1 GBytes SDR/DDR registered DIMM modules in production
- 2 GBytes SDR/DDR registered DIMM modules in sampling
  
- 128 MBytes SDR/DDR 1U registered DIMM modules in production
- 256 MBytes SDR/DDR 1U registered DIMM modules in production
- 512 MBytes SDR/DDR 1U registered DIMM modules in production
- 1 GBytes SDR/DDR 1U registered DIMM modules in production
- 2 GBytes SDR/DDR 1U registered DIMM modules in sampling

all Modules PC133 / DDR266/333

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# Infineon Product Portfolio - Infocomm

- 128Mb SGRAM in production
- 128 Mb Mobile-RAM in production
- 256 Mb Mobile-RAM in production
- 512 Mb Mobile-RAM in preparation
- 32 Mb CellularRAM in preparation



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Thank you